

## 横断山蕨类植物新种

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### SOME NEW SPECIES OF PTERIDOPHYTES FROM HENGDUAN MOUNTAINS

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**Abstract** Thirteen new species of pteridophytes are described from the Hengduan Mountains, China. They are *Selaginella laxistrobila* Shing, *S. trichophylla* Shing, *Hypodematium daochengense* Shing, *Stegnogramma latipinna* Ching, *Pseudocyclosorus pseudorepens* Ching et Y. X. Lin, *P. subfalcilobus* Ching, *Pyrrosia pseudodrakeana* Shing, *Lepisorus neolewisii* Shing, *L. bilouensis* Ching et Y. X. Lin, *Polypodium muliense* Ching, *P. nervopilosum* Shing, *P. intermedium* Ching et S. K. Wu and *P. daochengense* Ching et S. K. Wu.

**Key words** Hengduan Mt.; Pteridophytes; New Species

**关键词** 横断山; 蕨类植物; 新种

#### 1. 松穗卷柏 新种 图1

*Selaginella laxistrobila* Shing, sp. nov.

Species adspectu *S. nipponicae* Hand. - Mazz. similis, differt caule procumbente brevior, ramis erectis c. 2 cm altis, foliis lateralibus ovato-oblongis, basi fere aequalis, rotundo-cuneatis, apice apiculatis, a *S. tibeticae* Ching et S. K. Wu differt planta majore, caulibus gracilibus, textura tenuibus, foliis intermediis longo-ovatis, costis dorso indistincte carinatis.

**Sichuan** (四川): Kangding (康定), jieba, Sewurong, S. S. Kung (孔宪需) 6067 (Typus, PE), 1981. 08. 02, ad clivum australem in sylvis Quercorum, alt. 3350m.

近伏地卷柏 *S. nipponica* Hand.-Mazz. 但匍匐茎短, 直立分枝高约 2cm, 侧叶卵状长圆形, 基部近对称, 圆楔形, 顶端具小突尖; 也近西藏卷柏 *S. tibetica* Ching et S. K. Wu, 植株细小纤弱, 茎连叶宽 2mm; 叶质薄, 疏生, 中叶长卵形, 不呈明显的龙骨状。

#### 2. 毛叶卷柏 新种 图2

*Selaginella trichophylla* Shing, sp. nov.

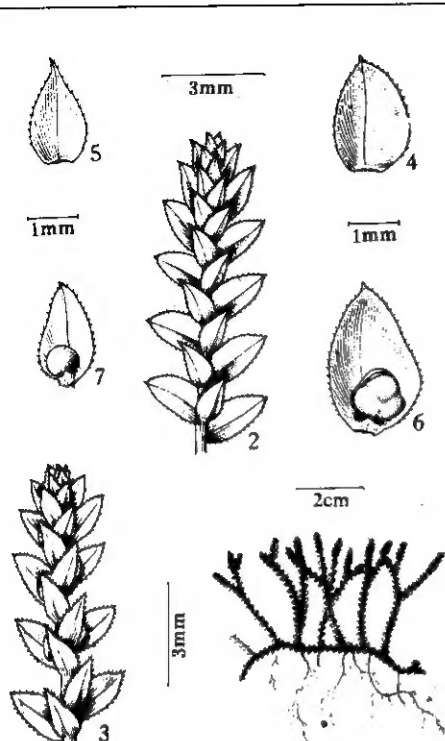


图1 松穗卷柏 1. 植株; 2. 不育枝; 3. 能育枝; 4. 侧叶; 5. 中叶; 6. 大孢子叶; 7. 小孢子叶。(冀朝桢绘)

Fig. 1 *Selaginella laxisorophylla* 1. habit; 2. sterile branch; 3. fertile branch; 4. lateral leaf; 5. median leaf; 6. macrosporophyll; 7. microsporophyll.

Species affinis *S. trachyphyllae* R. Br. differt caulibus procumbentibus, foliis ramealibus sparsis, foliis lateralibus ovato-deltoides, facie ventralis apice et inferis lateribus costarum breviter setiferis, foliis intermediis arrectis, fere in 1 seriem dispositis.

**Yunnan (云南):** Gongshan (贡山), Dulongjiang River, Qinghai-Xizang Exped. (青藏队) 9451 (Typus, PE), 1982. 08. 22, in sylvis frondosis, alt. 1450—1500 m.

本种近粗叶卷柏 *S. trachyphylla* R. Br., 不同点在于茎匍匐, 分枝上的叶疏生, 侧叶卵状三角形, 腹面顶部及中肋下侧散生短刚毛, 腹叶指向上, 几成一行排列。

### 3. 稻城肿足蕨 新种

***Hypodematium daochengense* Shing, sp. nov.**

Proxime affinis *H. crenato* (Forsk.) Kuhn, differt multo majore, stipite longitudine laminam aequante, pinnis confertis, lamina supra secus rhachim et venas pauca pilis villosis oblecto, subtus dense glandulosis villosisque.

**Sichuan (四川):** Daocheng (稻城), Qinghai-Xizang Exped. (青藏队) 81-4169 (Typus, PE), 1981. 08. 23, in fissuris rupium, alt. 3100 m.

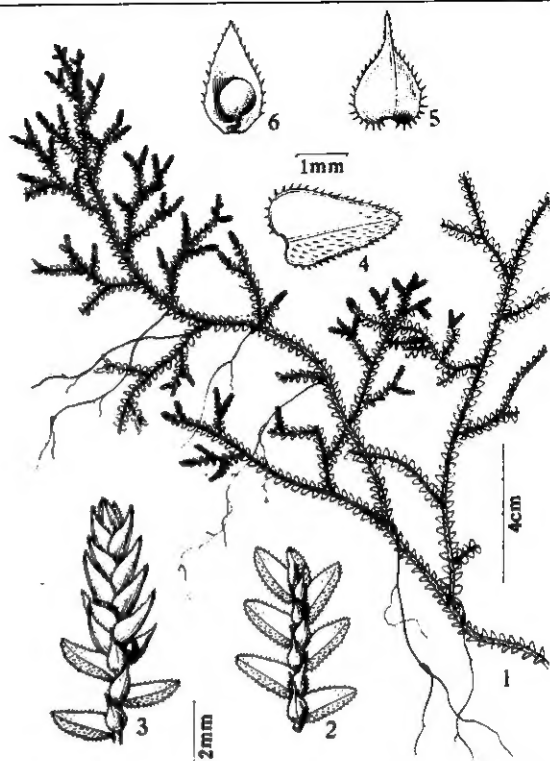


图2 毛叶卷柏 1. 植株; 2. 不育枝; 3. 能育枝; 4. 侧叶; 5. 中叶; 6. 孢子叶。(冀朝桢绘)

Fig. 2 *S. trichophylla* 1. habit; 2. sterile branch; 3. fertile branch; 4. lateral leaf; 5. median leaf; 6. sporophyll.

形體近腫足蕨 *H. crenatum* (Forsk.) Kuhn, 但植株遠較高, 葉柄和葉片等長, 羽片彼此密接, 葉片上面沿葉軸和羽軸及葉脈有一、二針狀毛, 下面有密腺毛。

#### 4. 寬羽溪邊蕨 新種

*Stegnogramma latipinna* Ching, sp. nov.

Ex affinis *S. asplenoidis* (J. Sm.) Ching a qua differt pinnis latioribus, basin versus dilatatis, subtus breviter villosis, stipitis basi longissimo—pellucido—multicellulati—crinitis.

Yunnan (云南): Gongshan (貢山), K. M. Feng (馮國楨) 7578 (Typus, PE), 1940. 09. 07, C. W. Wang (王啟元) 67250, 1935. 09., Qinghai—Xizang Exped. 82—7986, 82—7478; Yangbi (漾濞) R. C. Ching (秦仁昌) 22483, 1940. 04, crescit inter fruticeta vel in sylvis, alt. 1700—2600 m.

形體近喜馬拉雅溪邊蕨 *S. asplenoides* (J. Sm.) Ching, 不同點在於羽片較闊, 向基部變寬, 下面僅被短毛, 葉柄基部被極長的針狀毛。

#### 5. 毛脈假毛蕨 新種 圖3

*Pseudocyclosorus pseudorepens* Ching et Y. X. Lin, sp. nov.

Species proxime affinis *P. repenti* (Hope) Ching, a qua differt pinnis non latibasis, i. e. segmentis basalibus decrescentibus, subtus inter nervos glabris, indusiis tantum sparse setiferis.

Yunnan (云南): Gongshan (貢山), K. M. Feng 7082 (Typus, PE), 1940. 08. 29, in rupibus fossarum, alt. 2200—2500 m.

本種形體近喜馬拉雅假毛蕨 *P. repens* (Hope) Ching, 但羽片基部不變寬, 即羽片基部一對裂片縮短, 下面脈間無毛, 囊群蓋上僅有一、二根剛毛。

#### 6. 光脈假毛蕨 新種 圖4

*Pseudocyclosorus subfalcilobus* Ching, sp. nov.

Species habitu generali *P. falcilobo* (Hope) Ching valde similis, a quo differt pinnis lateralibus breviter petiolulatis, rhachidi et costis subtus pilis breviter setosis, segmentis lanceolatis, iis basi latere postice quam sequentibus brevioribus, soris costulae propioribus, indusiis puberulis.

Yunnan (云南): Gongshan (貢山), Qinghai—Xizang Exped. 82—9122, ad margines sylvarum, alt. 1300 m; Taron, Sronwang, T. T. Yü (俞德浚) 20160 (Typus, PE), 1938. 11. 07, ad scopulos umbrosos, alt. 1500 m.

本種形體近鐮形假毛蕨 *P. falcilobus* (Hope) Ching, 但側生羽片具短柄, 葉軸和羽軸下面被較短的毛, 裂片披針形, 羽片基部下側一片較同側上方的為短; 孢子囊群緊靠主脈, 囊群蓋被微毛。

#### 7. 擬毡毛石韦 新種

*Pyrrosia pseudodrakeana* Shing, sp. nov.

Species peculiaris inter *P. drakeana* (Franch) Ching et *P. sheareri* (Bak.) Ching medium tenens, ab ambabus differt lamina subtus pilis stelatis 2—stratis

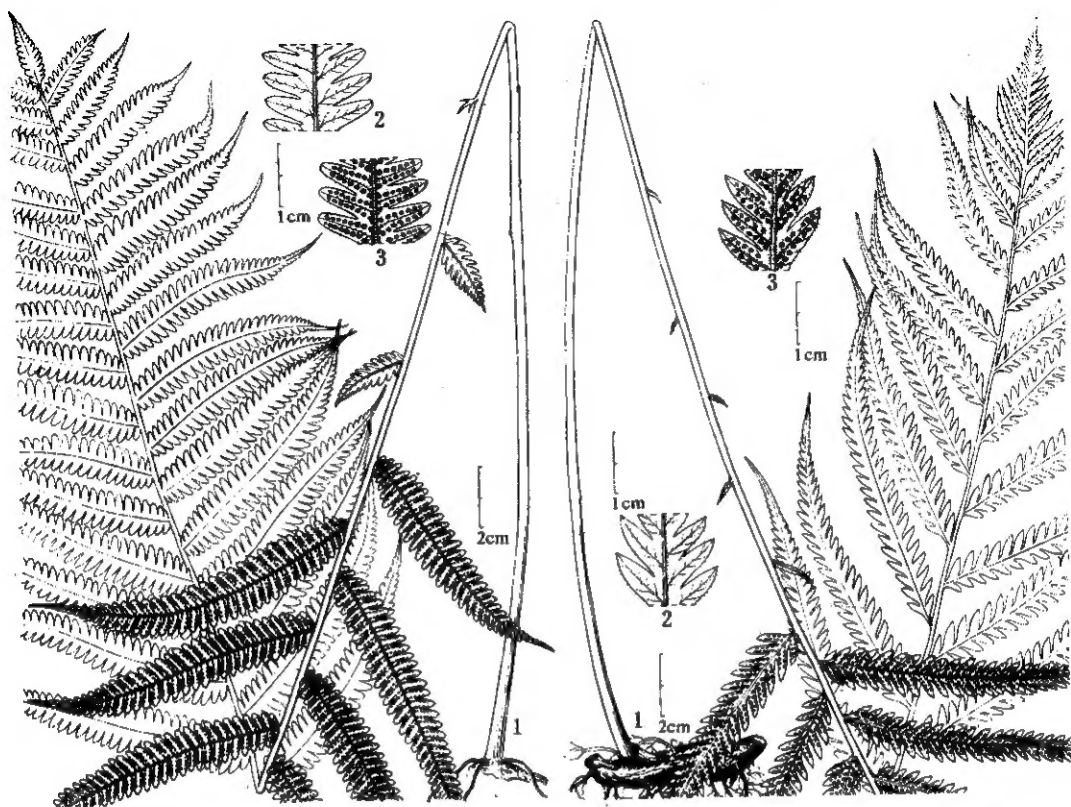


图3 毛脉假毛蕨 1. 植株; 2. 中部羽片一部分(上面); 3. 中部羽片一部分(下面), (冀朝桢绘)

Fig. 3 *Pseudocyclosorus pseudorepens* 1. habit; 2. part of median pinna from adaxial side; 3. part of median pinna abaxial side.

图4 光脉假毛蕨 1. 植株; 2. 中部羽片一部(上面); 3. 中部羽片一部分(下面), (冀朝桢绘)

Fig. 4 *P. subfalciloba* 1. habit; 2. part of median pinna from adaxial side; 3. part of median pinna from abaxial side.

obtecta, pilis stratis superis recto-subulatis, iis stratis subtis lanotis, necacerosis ut in *P. drakeana*, nec breviter lanceolatis ut in *P. sheareri*, paleis in rhizomate breviter lanceolatis, margine dense lanosis intractis.

Sichuan (四川): Nanping (南坪), Jiuzhaigou (九寨沟), Lang Kai-yung et al. (郎楷永等) 1709 (Typus, PE), 1983. 06. 09, in rupibus, alt. 2300 m; Wenchuan (汶川), Sichuan Exped. 8264; Maowen (茂汶), Maowen Exped. 2583.

本种形体似毡毛石韦 *P. drakeana* (Franch.) Ching 和庐山石韦 *P. sheareri* (Bak.) Ching, 但叶下面星状毛二层, 下层为棕色的卷曲绵毛, 上层毛的臂钻形, 既不为前者的针状, 也不为后者的披针形, 根状茎的鳞片披针形, 短渐尖头, 边缘密生卷曲的灰棕色绵毛。

#### 8. 新庐山瓦韦 新种 图5: 1—4

*Lepisorus neolewisii* Shing, sp. nov.

Species affinis *L. lewisii* (Bak.) Ching, differt lamina 18—20cm longa, 3—4mm lata, costa supra immersa, infra distincter elevatis, paraphysibus minoribus, ambitu irregulatis, margine obtuse denticulatis, paleis rhizomatis ovato-rotundatis, caudato-acuminatis.

**Sichuan (四川):** Nanping (南坪), Jiuzhaigou, Lang Kai-yung et al. 1682 (Typus, PE) 1983. 06. 08, in arborum truncis picearum, alt. 2300 m.

本种形体近似庐山瓦韦 *L. lewisii* (Bak.) Ching, 但叶片长 18—20cm, 宽 3—4mm, 中肋下面明显凸起, 上面凹陷, 孢子囊群的隔丝小, 形状不规则, 边缘有钝齿, 根状茎的鳞片卵圆形, 尾状渐尖头。

#### 9. 碧罗瓦韦 新种 图 5:5—8

*Lepisorus bilouensis* Ching et Y. X. Lin, sp. nov.

Species *L. angusto* Ching similis, differt lamina c. 15 cm longa, supra medium latiore, 4 mm lata, deorsum gradatim angustata, paleis rhizomatis ovato-lanceolatis, acuminatis, margine denticulatis, paraphysibus ambitu irregularibus, margine breviter dentatis.

**Yunnan (云南):** Weixi (维西), Mt. Bilou, Beijing Bot. Inst. HD Exped. (北京植物研究所横断山队) 01364 (Typus, PE) 1981.07.11, ad rupem, in Tsugis, alt. 3100—3200m.

本种极近狭叶瓦韦 *L. angustus* Ching, , 但叶片长 15cm, 中部以上宽约 4mm, 向下渐变狭; 根状茎上的鳞片卵状披针形, 渐尖头, 边缘具小齿, 孢子囊群的隔丝形状不规则, 边缘具尖齿。

#### 10. 木里水龙骨 新种

*Polypodium muliense* Ching, sp. nov.

Species proxime affinis *P. microrrhizomati* Clarke, a quo differt stipitibus rachidibusque stramineis, non rufo-purpuracentibus, pinnis sursum arcuatis, supra pubescentibus.

**Sichuan (四川):** Muli (木里), T.T.Y ü 10481 (Typus, PE), ad rupem, alt. 2600 m.

本种形体近细根水龙骨 *P. microrrhizoma* Clarke, 但叶柄和叶轴禾秆色, 不带红紫色, 羽片向上弯弓, 上面有毛。

#### 11. 脉毛水龙骨 新种

*Polypodium nervopilosum* Shing, sp. nov.

Species arcte affinis *P. microrrhizomati* Clarke, a quo differt planta habitu minore, 16—21 cm alta, pinnis obliquis, utrinque et margine pubescentis.

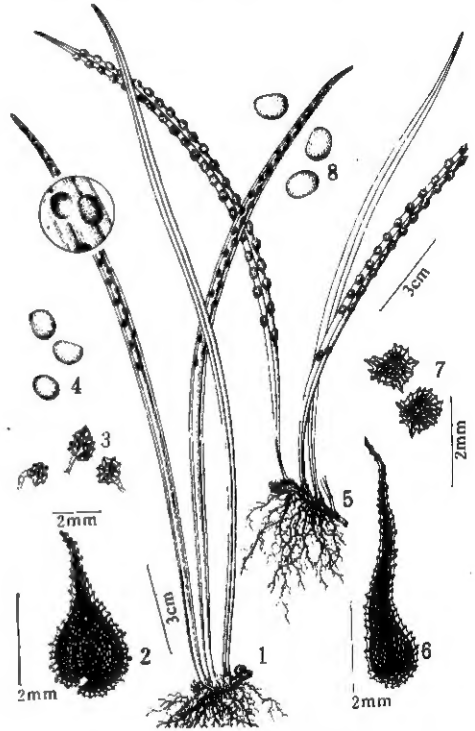


图 5 1—4. 新庐山瓦韦 1. 植株; 2. 根状茎鳞片; 3. 隔丝; 4. 孢子(放大)。5—8. 碧罗瓦韦 5. 植株; 6. 根状茎鳞片; 7. 隔丝; 8. 孢子(放大)。(冀朝桢绘)

Fig. 5 1—4. *Lepisorus neolewisii* 1. habit; 2. rhizome scale; 3. paraphysis; 4. spore (enlarged); 5—8. *L. bilouensis* 5. habit; 6. rhizome scale; 7. paraphysis; 8. spore (enlarged).

**Sichuan** (四川): Muli (木里), Qinghai-Xizang Exped. 14081 (Typus, PE), ad rupem, alt. 2000m.

本种形体极似细根水龙骨 *P. microrrhizoma* Clarke, 但植株较小, 高 16—21cm, 羽片斜上, 两面及叶缘有毛。

### 12. 中间水龙骨 (新种)

**Polypodium intermedium** Ching et S. K. Wu, sp. nov.

Species insignis *P. subamoeni* Clarke similis, sed paleis rhizomatis fusco-brunneis, supra in locis insertionum longe hispidis, segmentis margine inconspicue cuneato-serratis, subtus fere glabris.

**Yunnan** (云南): Zhongdian (中甸), Qinghai-Xizang Exped. 81—799 (Typus, PE), in arborum truncis.

形体颇似亚友水龙骨 *P. subamoenum* Clarke. 但根状茎上的鳞片褐棕色, 着生点上面有直的粗长毛, 叶片下面几无鳞片, 裂片边缘有不明显的缺刻状锯齿。

### 13. 稻城水龙骨 新种

**Polypodium daochengense** Ching et S. K. Wu, sp. nov.

Species proxime affinis *P. amoeno* (Mett.) Ching, a quo differt planta habitu multo minore, 13 cm alta, lamina deltoidea, 10 cm longa, segmentis 6 mm latis.

**Sichuan** (四川): Daocheng (稻城), Qinghai-Xizang Exped. 81-6012 (Typus, PE), in sylvis ad rupem, alt. 3400m.

本种形体近友水龙骨 *P. amoenum* (Mett.) Ching, 但植株远较小, 高 13cm, 叶片三角形, 长 10cm, 裂片宽 6mm。